APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,765	08/03/2001	Yasushi Konuma	212089US6	5944

22850   7590   12/17/2004

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
NATNAEL, PAULOS M

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/920,765	KONUMA, YASUSHI
	Examiner	Art Unit
	Paulos M. Natnael	2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *20 April 2004*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *2-7 and 9-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *15 and 16* is/are allowed.

6) ☒ Claim(s) *2-7 and 9-14* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims **2-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Markandey, U.S. Pat. No. **6,340,992** in view of **Hiroi**, U.S. pat. No. 6,204,887.

Considering claim **2**, Markandey discloses the following claimed subject matter, note:

a) determining means for determining whether or not an input video signal is a signal of

which a non picture portion is added to the periphery of an effective picture area, is met

by Signal Processor and Format Detection 202, fig.2, which "measures the

characteristics of the video signal to determine if the video signal is letterboxed, and

what portion of the video signal actually contains the desired image." (see col. 3, lines

46-50)

b) picture processing means for extracting a signal of the effective picture area from the

input video signal, is also met by the signal processor and format detection 202, fig.2,

which "After detecting the size and location of the desired image, the signal and format

detection processor 202 scales the video signal 104 to optimally fill the useable area of

the display device 116," (see col. 3, lines 50-54) and the scaled signal being "the

desired portion of the video image" (see Abstract).

c) adjusting the picture size using the signal of the effective picture area, is met by the

disclosure that "after detecting the size and location of the desired image, the signal and

format detection processor 202 scales the video signal 104 to optimally fill the useable

area of the display device 116." (see col. 3, lines 50-54)

d) combining the picture when the determined result of said determining means

represents that the input video signal is a signal of which a non-picture portion is added

to the periphery of the effective picture area, is met by Fig.3 where it is shown that when

the picture includes a non-picture portion the system combines the two and outputs the

result to the display screen as shown on Fig.3, which is a prior art to Markandey.

        Except for;

e) wherein said picture processing means performs a multiple-picture displaying

process for adjusting the picture sizes of a plurality of input video signals of a plurality of

sources and combining pictures corresponding to the plurality of input video signals of

the plurality of sources on the background screen;

        Regarding e), Markandey does not disclose method of receiving and processing

multiple pictures and adjusting the picture size of the plurality of input video signals.

However, it is well known in the art for a video processor to perform multiple picture

displaying process, adjusting or scaling the picture sizes of the plurality of input video

signals of a plurality of sources and combining the pictures as needed. In that regard,

Hiroi discloses such a method and apparatus for decoding and displaying multiple

images using a common processor. Hiroi teaches on Fig.3A & 3B which illustrate a

display device including a screen having a plurality of windows in which images (TV

program 1, 2, and 3) received from different video sources are displayed at the same

time. Figure 1 of Hiroi clearly illustrates that the TV programs or pictures are received

from multiple sources using multiple tuners (106, 106', and 106"). And these video

signals are processed by <u>a video processor 110 which includes a decoder and **a scalar**</u>

as shown in fig.1;

Therefore, it would have been obvious to the skilled in the art at the time the

invention was made to modify the system of Markandey, by providing the methods of

Hiroi for decoding and displaying multiple images, in order for the system to be more

compact and less costly for the user by processing multiple pictures using only one

single processor.

Considering claim **3**, the picture processing apparatus as set forth in claim 1,

wherein said picture processing means performs a reduced picture displaying process

for reducing the picture size of the input video signal and combining the reduced picture

on the background screen;

Regarding claim **3**, Markandey discloses "after detecting the size and location of

the desired image, the signal and format detection processor 202 scales the video

signal 104 to optimally fill the useable area of the display device 116." (see col. 3, lines

50-54) Markandey doesn't reduce the picture size. However, the Admitted Prior Art

discloses a process of reduction where Fig.3A is reduced in size to fit on the screen

along side fig.3B, as shown in Fig.3C.

Therefore, it would have been obvious to the skilled in the art at the time the

invention was made to modify the system of Markandey by implementing the method of

reduction in size of the image in order to fit two images on the screen so that the viewer

utilizes the screen of the TV more flexibly or efficiently.

Considering claim **4**, the picture processing apparatus as set forth in claim **1**,

wherein said determining means determines whether or not the input video signal is a

signal of which a non-picture portion is added to the periphery of the effective picture

area corresponding to information of an interface to which the input video signal is input;

Regarding claim **4**, Markandey does not specifically disclose a separate interface

to which the input video signal is input. Markandey does not disclose the details of the

signal processor and format detection circuitry. However, an interface between the

receiver which receives the incoming signal and the signal processor and format

detection circuitry 202 would have been obvious to the skilled in the art because a

device or mechanism that relays/transmits the signal to different appropriate circuitry

would be needed in order to process the signal faster.

Considering claim **5**, the picture processing apparatus as set forth in claim **1**,

wherein said determining means determines whether or not the input video signal is a

signal of which a non-picture portion is added to the periphery of the effective picture

area corresponding to information superimposed with or added to the input video signal,

is met by the disclosure that "The signal and format detection processor 202 measures

the characteristics of the video signal to determine if the video signal is letterboxed, and

what portion of the video signal actually contains the desired image" (see col. 3, lines

46-50) which characteristics are included or superimposed on the input video signal.

Considering claim **6**, the picture processing apparatus as set forth in claim 1,

wherein said determining means detects a non signal portion of the input video signal

and determines whether or not the input video signal is a signal of which a non-picture

portion is added to the periphery of the effective picture area.

See rejection of claim 1(a);

Considering claim **7**, the picture processing apparatus as set forth in claim 1,

wherein said determining means determines whether or not the input video signal is a

signal of which a non-picture portion is added to the periphery of the effective picture

area corresponding to information contained in a transport stream that is transmitted;

Regarding Claim 7, Markandey does not specifically use the term "transport

stream", but Markandey discloses "video stream" thusly: "A new technique has been

developed which automatically detects letterbox video formats and scales a video

image to fit a non-letterbox video display area. The new technique not only optimizes

the image scaling to fit a given display, it is also capable of detecting subtitles in the

video stream" (col. 3, lines 17-22) which is suggesting that any other type of detecting

information would also be contained in the video stream. [emphasis added]

It would have been therefore obvious to the skilled in the art at the time the

invention was made to modify the system of the Markandey by providing the method of

including detection information of the display format so that based on the information

contained in the video stream the system would detect the type of format, be it letter-

box display format or other type of display format.

Considering claim **8**, a picture processing method, comprising the steps of

(a) determining whether or not an input video signal is a signal of which a non-picture

portion is added to the periphery of an effective picture area, is met by the disclosure

"The signal and format detection processor 202 measures the characteristics of the

video signal to determine if the video signal is letterboxed, and what portion of the video

signal actually contains the desired image." (see col. 3, lines 46-50)

(b) extracting a signal of the effective picture area from the input video signal, is also

met by the signal processor and format detection 202, fig.2, which "After detecting the

size and location of the desired image, the signal and format detection processor 202

scales the video signal 104 to optimally fill the useable area of the display device 116,"

(see col. 3, lines 50-54) and the scaled signal being "the desired portion of the video

image" (see Abstract).

c) adjusting the picture size using the signal of the effective picture area, is met by the

disclosure that "after detecting the size and location of the desired image, the signal and

format detection processor 202 scales the video signal 104 to optimally fill the useable

area of the display device 116." (see col. 3, lines 50-54)

d) and combining the picture when the determined result at step (a) represents that the

input video signal is a signal of which a non-picture portion is added to the periphery of

the effective picture area, is met by Fig.3 where it is shown that when the picture

includes a non-picture portion the system combines the two and outputs the result to the

display screen as shown on Fig.3;

Considering claim 9, see rejection of claim 2;

Considering claim 10, the picture processing method as set forth in claim 8, wherein

step (b) is performed by reducing the picture size of the input video signal and

combining the reduced picture on the background screen.

   See rejection of claim 3;

Considering claim 11, the picture processing method as set forth in claim 8, wherein

step (a) is performed corresponding to information of an interface to which the input

video signal is input.

   See rejection of claim 4;

Considering claim **12**, the picture processing method as set forth in claim 8, wherein

step (a) is performed corresponding to information superimposed with or added to the

input video signal.

See rejection of claim 5;

Considering claim **13**, the picture processing method as set forth in claim 8,

wherein step (a) is performed by detecting a non-signal portion of the input video signal

and determining whether or not the input video signal is a signal of which a non-picture

portion is added to the periphery of the effective picture area.

See rejection of claim 6;

Considering claim **14**, the picture processing method as set forth in claim 8, wherein

step (a) is performed corresponding to information contained in a transport stream that

is transmitted.

See rejection of claim 7;

Response to Arguments

3.   Applicant's arguments filed **20 September 2004** have been fully considered but

they are not persuasive.

<u>Applicant's Arguments</u>

a) Markandey does not teach or suggest combining multiple pictures of different formats

and aspect ratios on a single display in a plurality of corresponding image areas. For

example, Markandey cannot process both letterbox and side panel formats, thus it

cannot interpolate at proper timings to adjust for different formats as recited in amended

claim 2; Therefore, Markandey does not teach or suggest a picture processing

apparatus as recited in amended claim 2; which adjusts picture sizes and combines

pictures interpolated at proper timings so that the effective picture area is extracted and

displayed during a multiple-picture display process.

b) Hiroi teaches an apparatus and methods for decoding multiple images to be

displayed using limited resources. Hiroi, does not remedy the deficiency discussed

above with reference to Markandey.

Examiner Response

a) The rejection was made using combination of references not only one reference:

Markandey. Applicants cannot show non-obviousness by attacking references

individually where, as here, the rejections are based on combinations of references. In

re Keller, 208 USPQ 871 (CCPA 1981).

b) In the case of Hiroi, it is not understood what Applicant meant by "using limited

resources" in the context of the rejection. As shown above, Hiroi teaches a method and

apparatus for decoding and displaying multiple images using a common processor.

Hiroi teaches on Fig.3A & 3B which illustrate a display device including a screen having

a plurality of windows in which images (TV program 1, 2, and 3) received from different

video sources are displayed at the same time. Figure 1 of Hiroi clearly illustrates that

the TV programs or pictures are received from multiple sources using multiple tuners

(106, 106', and 106") and these video signals are processed by a video processor 110

which includes a decoder and a scalar as shown in fig.1. Thus, the argument is

unpersuasive.

Allowable Subject Matter

4.   Claims **15-16** are allowed.

5.   The following is a statement of reasons for the indication of allowable subject

matter: the prior art fails to disclose a picture processing apparatus comprising a

determining section operative to identify whether or not an input video signal is a signal

of which a non-picture portion is added to the periphery of an effective picture area, the

determining section comprising, an ID detecting portion configured to detect a picture

format of the plurality of input video signals of the plurality of sources, an additional

information detecting portion configured to detect additional information superimposed

with the plurality of video signals of the plurality of sources, and a non-signal detecting

portion configured to compare a level of each of the plurality of input video signals of the

plurality of sources with a predetermined level, as in claim **15**.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

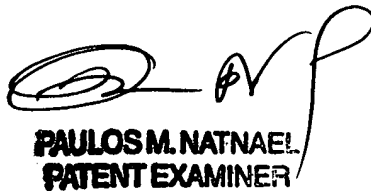than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Paulos M. Natnael whose telephone number is (703)

305-0019. The examiner can normally be reached on 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

PMN
December 7, 2004

PAULOS M. NATNAEL
PATENT EXAMINER